



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

Inventor(s): VIHRIALA

Appl. No.: 09 830,881

Series Code ↑ Serial No. ↑

Filed: May 2, 2001

ATTENTION: Office of Initial Patent Examination  
Customer Service Center

Title: METHOD OF PROCESSING CDMA SIGNAL COMPONENTS

Date: August 7, 2001

Asst. Commissioner of Patents  
Washington, D.C. 202031

RECEIVED

AUG 14 2001

Technology Center 2600

Sir:

**REQUEST FOR CORRECTED FILING RECEIPT**

1. Attached is a copy of the official filing receipt from the PTO in the above application for which issuance of a corrected filing receipt is respectfully requested.

2. There is an error with respect to the following data which is

☒ incorrectly entered  
**Error in**

and/or

☐ omitted  
**Correct data**

1. ☐ Applicant's Name

1.

2. ☐ Applicant's Address

2.

3. ☐ Title

3.

4. ☐ Filing Date

4.

5. ☐ Serial Number

5.

6. ☒ Foreign/PCT Application Re

6. FINLAND 19991871 09/02/1999

7. ☐ Other

7.

3. It is understood that the PTO no longer charges for correcting filing receipts even when the error is applicants' mistake, but if that is incorrect and a fee is due for this correction please charge our Deposit Account No. 03-3975 under Order No. 060258/280117

**Pillsbury Winthrop LLP  
Intellectual Property Group**

1600 Tysons Boulevard

By Atty: Christine H. McCarthy

Reg. No. 41844

McLean, VA 22102

Tel: (703) 905-2000

Atty/Sec: CHM/JRH

Sig: 

Fax: (703) 905-2500

Tel: (703) 905-2143

(Attach Filing Receipt copy and PTO receipt PAT-103A)



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/830,881	05/02/2001	2681	1310	P 280117	6	12	2

CONFIRMATION NO. 5337

00909  
PILLSBURY WINTHROP LLP  
1100 NEW YORK AVENUE, N.W.  
9TH FLOOR  
WASHINGTON, DC 20005

## FILING RECEIPT



\*OC000000006155636\*

Date Mailed: 06/06/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Jaakko Vihriala, Oulu, FINLAND;

RECEIVED

AUG 14 2001

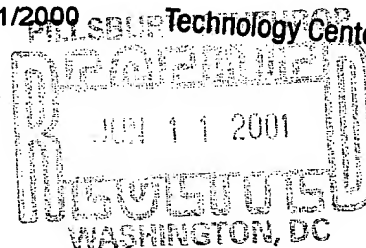
## Domestic Priority data as claimed by applicant

THIS APPLICATION IS A 371 OF PCT/FI00/00739 09/01/2000

Technology Center 2600

## Foreign Applications

FINLAND 1991871 09/02/1999



Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

## Title

Method of processing cdma signal components

## Preliminary Class

455

Data entry by : ORDENEZ, MARTA

Team : OIPE

Date: 06/06/2001

**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

**PLEASE NOTE the following information about the Filing Receipt:**

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

091830881(07007)

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 March 2001 (15.03.2001)

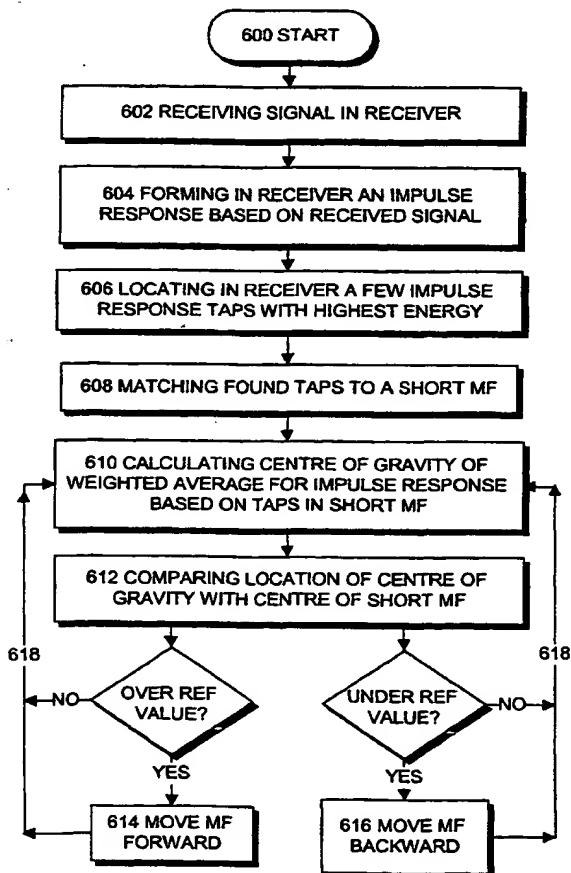
PCT

(10) International Publication Number  
WO 01/18985 A1

- (51) International Patent Classification<sup>7</sup>: H04B 1/707 (72) Inventor; and  
(21) International Application Number: PCT/FI00/00739 (75) Inventor/Applicant (for US only): VIHRIÄLÄ, Jaakko [FI/FI]; Seelannintie 22 A 2, FIN-90800 Oulu (FI).  
(22) International Filing Date: 1 September 2000 (01.09.2000) (74) Agent: KOLSTER OY AB; Iso Roobertinkatu 23, P.O. Box 148, FIN-00121 Helsinki (FI).  
(25) Filing Language: English (81) Designated States (national): AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR (utility model), KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.  
(26) Publication Language: English  
(30) Priority Data: 19991871 2 September 1999 (02.09.1999) FI  
(71) Applicant (for all designated States except US): NOKIA NETWORKS OY [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).

[Continued on next page]

(54) Title: METHOD OF PROCESSING CDMA SIGNAL COMPONENTS



(57) Abstract: The invention relates to a method of processing multi-path-propagated components of a signal in a communications system. In the method, a signal transmitted on the radio channel of the communications system is received (602) in a RAKE receiver and an impulse response of the radio channel is formed (604). In the method, one or more taps having the highest signal energy in the impulse response are located (606) and matched (608) to a short matched filter. A weighting value for the impulse response is calculated (610) on the basis of the one or more taps in the matched filter and a deviation between the weighting value and the centre point of the matched filter is compared (612) with a threshold value set for the deviation. The matched filter is moved (614 to 616) toward the deviation when the deviation exceeds the threshold value set for the deviation.

WO 01/18985 A1



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(48) **Date of publication of this corrected version:**

31 May 2001

(15) **Information about Correction:**

see PCT Gazette No. 22/2001 of 31 May 2001, Section II

**Published:**

— *With international search report.*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*